Remarks

I. Introduction

This is in response to the final Office Action dated July 6, 2004. Applicant filed a Notice of Appeal dated October 6, 2004. However, upon reconsideration, Applicant believes that this case can be most efficiently brought to issuance via this Amendment, or alternatively that this Amendment will place the claims in better form for appeal. As such, Applicant is filing this Amendment in conjunction with a Request for Continued Examination under 37 CFR §1.114. Since this Request for Continued Examination is being filed after appeal, but prior to a decision on the appeal, Applicant requests that it be treated as a request to withdraw the appeal and to reopen prosecution of the application before the examiner, in accordance with the provisions of 37 CFR §1.114(d).

The Office Action rejected claims 1, 2, 4-10 and 12-16 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,006,264 (Colby et al.) in view of U.S. Patent No. 6,374,297 (Wolf et al.).

Claims 1, 2, 4-10 and 12-16 have been amended herein to more particularly point out and distinctly claim the invention. Claims 1, 2, 4-10 and 12-16 remain for consideration.

II. The Claims are Allowable Over the Cited Art

The Office Action relied mainly on Colby et al. as disclosing most of the claim limitations, while relying on Wolf et al. as disclosing the limitation of modifying a local load weight. However, for the reasons discussed below, a combination of Colby et al. and Wolf et al. does not render the amended claims obvious because several claim limitations are missing from both Colby et al. and Wolf et al.

The present invention is directed to adjusting the transmission rate of a terminal which is sending data to a plurality of servers. Colby et al., on the other hand, does not adjust the transmission rate of the terminals. Instead, Colby et al. intercepts data sent from a client terminal and directs the data to an appropriate server. There is no adjustment made to the transmission from the terminal (client). The terminal of Colby et

al. sends data as it normally does, and the load balancing is performed at a special network node. This is made clear in Colby et al. at col. 2 lines 48-58, "when a client ...makes a content request, the request is **intercepted** by a content-aware flow switch, which seamlessly forwards the content request to a server that is well-suited to serve the content request" (emphasis added). Colby et al. in the same cited section also indicates that "[t]he entire process of server selection is transparent to the client". It is therefore clear that in Colby et al. the load balancing processing takes place at a "content-aware flow switch" which intercepts the data transmissions of the terminals. There are no adjustments made at the terminal.

Independent claim 1 has been amended to more particular point out and distinctly claim this distinction over Colby et al. In particular, amended claim 1 now contains the limitation of:

> adjusting the transmissions **from the at least one terminal** to said plurality of servers . . . by modifying at least one local transmission weight **at said at least one terminal** ...

Amended claim 1 now makes it clear that the transmission **from the at least one terminal** is adjusted by modifying a local transmission weight **at said at least one terminal**. Unlike Colby et al., there is no need for a dedicated network switch to intercept data transmitted from the terminal. Instead, a method in accordance with the present invention adjusts the transmission rate at the terminal. This claim limitation is neither disclosed nor suggested by Colby et al. As discussed above, Colby et al. performs the load balancing at a network node, not at the terminal. As discussed above, the load balancing in Colby et al. is "transparent to the client", which indicates that the load balancing is handled remote from the client and the client does not make any adjustments in order to implement the load balancing.

The Office Action responded to Applicant's prior arguments by stating that the Colby et al. content-aware flow switch, which intercepts and redirects flows from clients to servers, "reads on adjusting the transmissions from terminal to the server". Thus, the Examiner argued that the function of the Colby et al. content-aware flow switch read on the claimed end-result of adjusting the transmissions from the terminal to the server. However, claim 1, as currently amended, now clearly distinguishes over Colby et al.

since the transmission adjustment is now made **by adjusting a parameter <u>at the terminal</u>**. This is a clear distinction over Colby et al.

The Office Action admitted that Colby et al. does not disclose modifying local load weights as claimed and relied on Wolf et al. as providing the missing disclosure. However, as will be described, Wolf et al. does not disclose the limitations of amended claim 1 which now contains the limitation of:

> adjusting the transmissions ... by modifying at least one local transmission weight ... wherein said local transmission weight represents a probability of said at least one terminal distributing a data transmission to a particular server.

The amended claim has clarified the terminology and now uses the term "local transmission weight" instead of "local load weight". Further, the amended claim now particularly sets forth that the local transmission weight represents a probability of said at least one terminal distributing a data transmission to a particular server. Nowhere does Wolf et al. disclose the use of the this particularly defined local transmission weight. This particular technique for adjusting transmissions, which is now more clearly claimed in amended claim 1, is not disclosed nor suggested by Wolf et al. While Wolf et al. does disclose load balancing, it performs load balancing in a very different way, i.e., by using graph theory. This is clear from the disclosure of Wolf et al. For example, at col. 3, lines 28-31 (which is the section cited by the Office Action), Wolf et al. states that its load shifting method is "graph-theoretic". This use of graph techniques is made clear throughout the specification of Wolf et al. (see, in particular, Figs. 4, 5, and 6). The method for load balancing in Wolf et al. is described in connection with the flowcharts of Figs. 1 and 2 (see specification at col. 8, line 13 et seq.) which clearly indicate the use of graph theory in the load balancing determination (see, e.g., steps 230 and 240).

In contrast to Wolf et al., the present invention, as claimed in amended claim 1, is directed to the use of local transmission weights at the terminal for load balancing. These specifically claimed techniques are different from Wolf et al.'s graph techniques. As such, Wolf et al. does not disclose these claim limitations.

For the reasons discussed above, the combination of Colby et al. and Wolf et al. does not render amended claim 1 obvious. Reconsideration and allowance of amended claim 1 is requested.

Independent claim 9 has been amended in a manner similar to that of claim 1 and is therefore allowable for the same reason.

All remaining dependent claims depend upon, and incorporate the limitations of, one of the independent claims described above and are allowable for the reasons discussed above. In addition, the dependent claims add additional patentable subject matter, for example as follows.

Claims 5 and 13 have also been amended and now contain the limitations of:

> adjusting a local load coefficient at said at least one terminal, wherein said local load coefficient represents a probability of said at least one terminal distributing a data transmission to a server rather than blocking the data transmission.

The use of this type of load coefficient is not disclosed in the cited references. The Office Action cites Colby et al. at Col. 7, line 58 – col. 8, line 5; Fig. 2 Flow admission control, and col. 9, lines 58-67, as disclosing the limitations relating to the load coefficient. However, these cited sections of Colby et al. are unrelated to the use of a load coefficient as set forth in the present claims. A review of these cited sections indicates that they do not disclose a load coefficient which represents the probability of the terminals distributing a data transmission to one of the servers rather than blocking the data transmission. In responding to Applicants prior arguments with respect to claims 5 and 13, the Examiner indicated that "the features upon which applicant relies ... are not recited in the rejected claim(s)". Applicant submits that the features argued above are now specifically recited in claims 5 and 13. As such, Applicant requests allowance of claims 5 and 13.

III. No New Matter Has Been Added

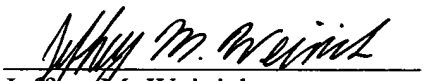
The claim amendments do not add new matter. The claim amendments related to "modifying at least one local transmission weight at said at least one terminal" and "wherein said local transmission weight represents a probability of said at least one

terminal distributing a data transmission to a particular server" are supported by the specification as filed at least at page 11, lines 14-23. The claim amendments related to "adjusting a local load coefficient at said at least one terminal" and "wherein said local load coefficient represents a probability of said at least one terminal distributing a data transmission to a server rather than blocking the data transmission" are supported by the specification as filed at least at page 6, lines 13-19 and page 11, lines 14-23.

IV. Conclusion

For the reasons discussed above, all pending claims are allowable over the cited art. Reconsideration and allowance of all pending claims is respectfully requested.

Respectfully submitted,



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